KEYSTONE

Complete assembly and disassembly instructions for 100-500mm F631 PN10 & PN16 valves.

Safety Precautions

Whenever a valve is being installed or removed from the pipeline, ensure the line is not pressurised and any hazardous medium is drained away. Before carrying out any maintenance where the valves are either pnuematically or electrically actuated be sure to close/isolate the air supply and exhaust the pressure to the actuator OR ensure the electrical supply is disconnected by authorised personnel.

Maintenance

Routine maintenance or lubrication are not required.

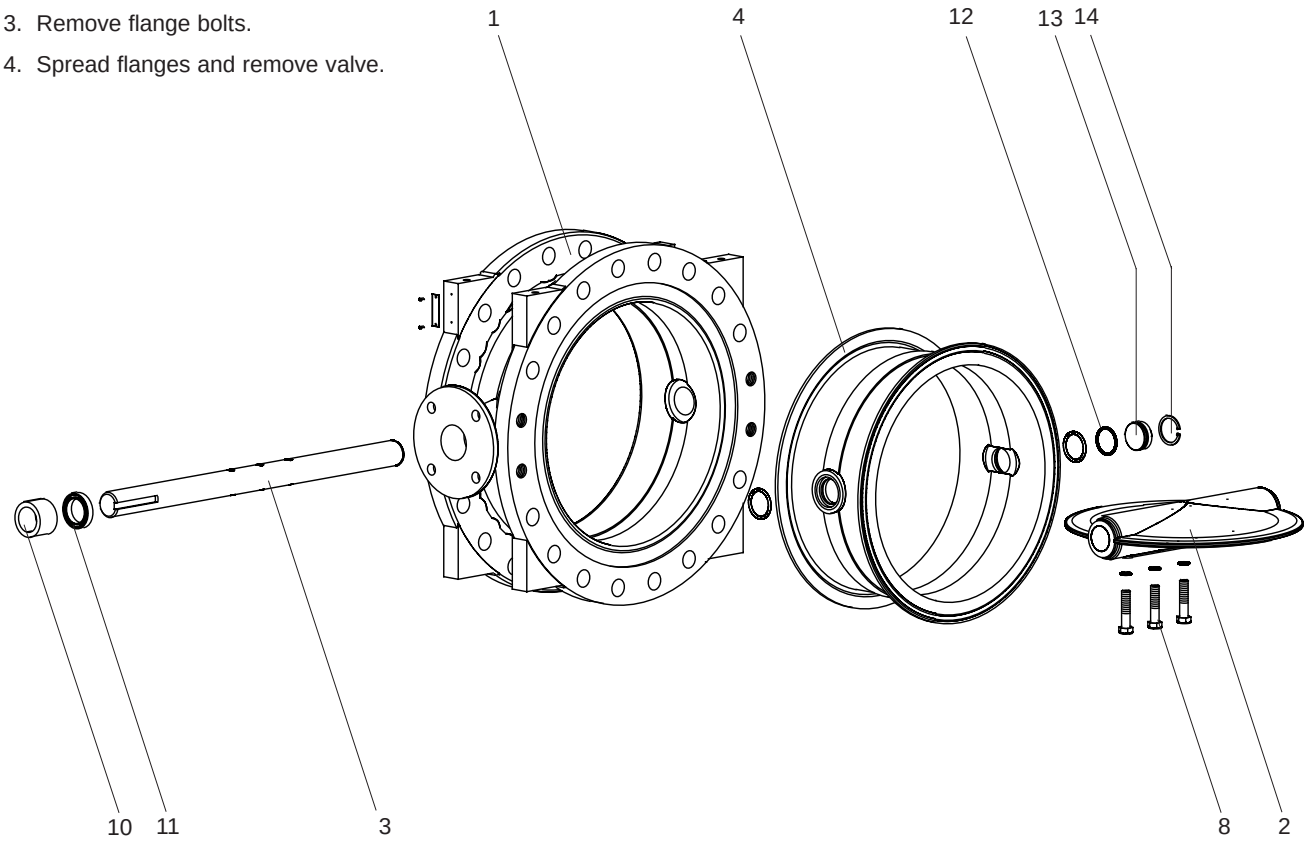
Removal Instructions

If it is necessary to replace components, the valve must be removed from the pipe.

1. Partially open valve (5°open).
2. Disconnect any power supplies.
3. Remove flange bolts.
4. Spread flanges and remove valve.

Disassembly Instructions

1. Turn the disc (2) to the 5°open position.
2. Remove the actuator from the valve, if you have not already done so.
3. Remove disc screws (8).
4. Remove circlip (14), body plug (13) and plug O-ring (12) from the shaft (3) at the opposite end to the actuator end of shaft.
5. Remove shaft bush (10) and shaft seal (11) from actuator end of shaft.
6. Extract shaft carefully, ensuring not to scrape shaft against the shaft bore. Note position of keyway in relation to the actuator.
7. Twist disc (2) to the fully open position then roll the disc out of the seat, ensuring not to damage the disc edge.
8. Collapse seat (4) to the centre of the valve bore at the O-ring housing spigots (shaft holes) and gently lever one side of the seat from the flange face, then pull through when the seat is clear of the bed groove. Do not use any sharp tools to aid removal of seat.
9. Remove upper and lower bearings for inspection (PN16 valves only).
10. Thoroughly clean all components and examine them for excessive wear or damage.
    It is recommended that all 'O'-rings be replaced and all seats, bushes, plugs etc. are free from damage burrs etc.



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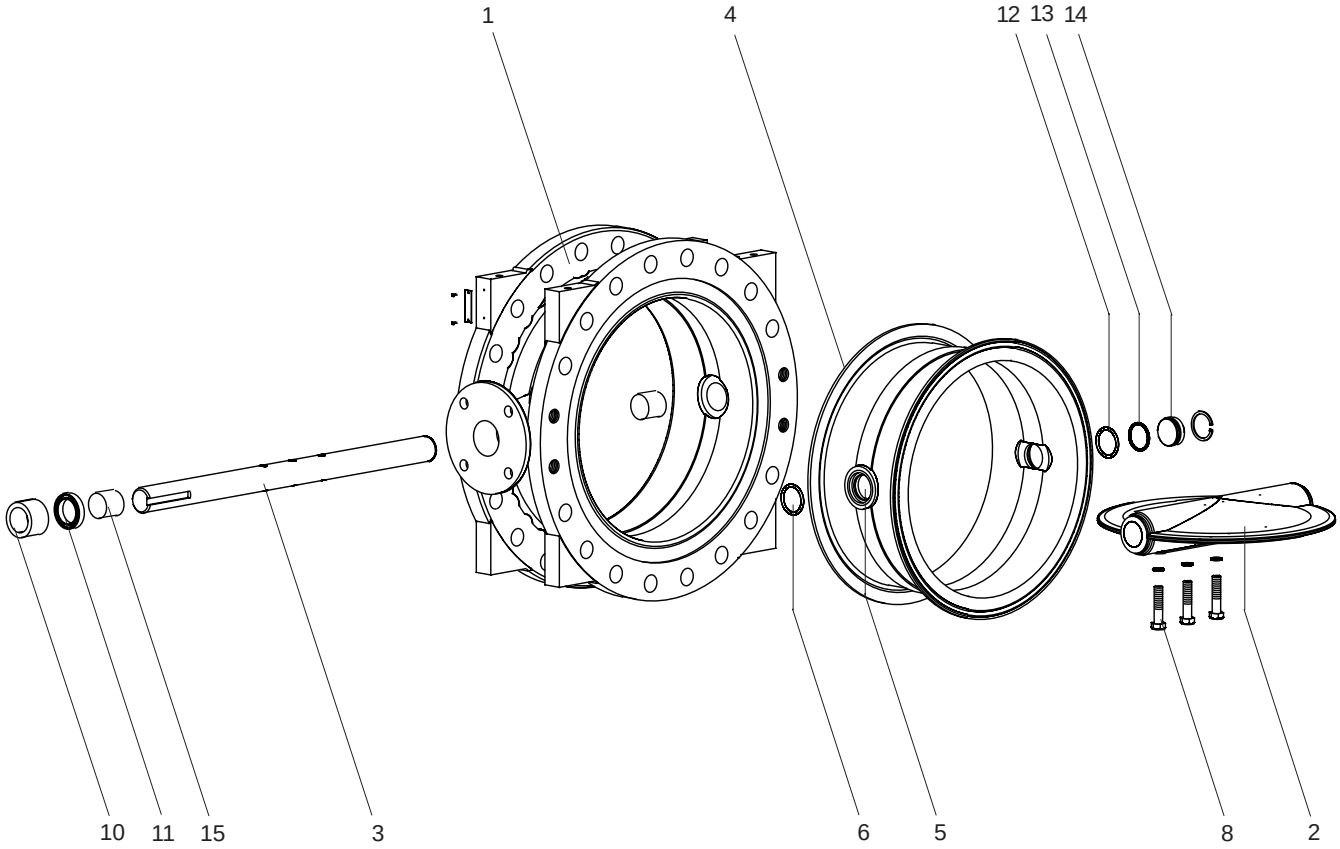
Assembly Instructions

1. Check all components are clean and free of damage.
2. Fit seat insert O-rings (6) into seat inserts (5) encapsulated in the seat (300 to 500 only).
3. Collapse the seat (4) and push into the bore of the valve, aligning the seat inserts (5) with the shaft bore.
   Ensuring O-rings are still in position, locate spigot in shaft bore at the hub end, then gently push seat (4) into bedgroove simultaneously on both sides, working your way up to the top shaft bore. Then ensure the remaining spigot is correctly positioned. Inspect the seat (4) to ensure that it is sitting evenly in the bedgroove and apply pressure with thumbs at the spigots to ensure correct fit and that the seat is sitting evenly on the flange face.
4. Fit shaft bearing (15), shaft seal (11) and shaft bush (10).
5. Insert the shaft (3) into the neck of the valve and stop prior to entering the valve bore.
6. Roll disc (2) into the seat leading with the disc edge (ensuring not to damage the edge) with the disc screw holes closest to the neck of the valve, then twist disc until the shaft holes are aligned.
7. Push shaft (3) downwards through the disc (2) into the hub of the valve until the disc screw holes are aligned counterbore side towards the disc. A twisting motion while pushing down will aid with smooth insertion.
8. Insert disc screws (8) with their O-ring and tighten to 16 Nm.
9. Push body plug (13) and plug O-ring (12) into position at the hub end of the valve shaft bore and lock into position with the circlip (14).
10. Slowly actuate valve to ensure all components are free and correctly aligned.
11. Assembly is now complete and the valve is ready for installation or storage. Refer to F631 Installation Instructions for details.



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